

ABSTRACT

In a communication system in which an incoming signal is pulse shaped prior to detecting the information bearing point of the signal, processing overhead can be significantly reduced by only processing the sample points
5 corresponding to the information bearing point and two points bounding the information bearing point. During signal acquisition, the signal is oversampled and the pulse shaping filter processes every sample point, or every Nth sample point in the case of down sampling. Once the sample point corresponding to the information bearing point is determined, the pulse
10 shaping filter can be instructed to only process the sampling corresponding to the information bearing point and two neighboring samples. The system and method is adaptive, in that the samples that are processed can shift as the information bearing point shifts relative to the sample points. This is accomplished by re-synchronizing the timing of the received slot.